

Planetary Health Report Card (Medicine):

Johann Wolfgang Goethe Universität



2024-2025 Contributing Team:

- Students: N. Bode, S. Bernard, F. Gonsior, A. Gündüz, P. Fölsing
- Faculty Mentors: -

^{*}Primary Contact: N. Bode, zille02@gmx.de

Summary of Findings

Overall Grade	C -
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Curriculum

- Goethe University Frankfurt includes planetary health topics in environmental medicine and general health courses. Strengths include climate change's impact on infectious diseases, extreme weather, and air pollution, with one elective on climate and health. However, gaps remain in environmental justice, reproductive health effects of toxins, and sustainable clinical practices. There is no designated faculty member overseeing planetary health integration.
- **Recommendation:** Assign a faculty member to oversee planetary health education and expand courses to cover marginalized populations, sustainable healthcare, and environmental toxins, especially reproductive risks.

Interdisciplinary Research

 \mathbf{C}

- Goethe University Frankfurt researches sustainability and biodiversity but lacks a strong focus on planetary health or sustainable healthcare. While it hosts events and maintains a sustainability website, participation in major planetary health conferences is limited, affected communities are not included in research decisions, and it is not part of planetary health organizations.
- **Recommendation:** Strengthen planetary health by prioritizing sustainable healthcare, involving affected communities, and joining networks like the Planetary Health Alliance or KLUG.

Community Outreach and Advocacy

D

- The university lacks formal partnerships with community organizations and post-graduate education on sustainable healthcare. However, it hosts public events, communicates sustainability efforts via its Office of Sustainability, and offers global health materials through the "Gesundheitsforum." There are no accessible patient resources on climate-related health impacts.
- **Recommendation:** Establish community partnerships, introduce post-graduate education on sustainable healthcare, and create patient-friendly materials on climate-related health risks.

Support for Student-Led Initiatives

C-

- Goethe University Frankfurt provides little support for student-led planetary health initiatives, with no funding, structured research fellowships, or centralized resources. While the Office of Sustainability supports student projects, there is no student representative in sustainability decision-making. Students can engage in some activities, such as organic agriculture, panel discussions and outdoor activities.
- **Recommendation:** Provide funding for student-led initiatives, create research opportunities, and include student representation in sustainability decision-making.

Campus Sustainability

 \mathbf{D} +

- Goethe University has a sustainability office and initiatives like 100% green electricity and sustainable mobility. However, the medical campus, part of the university hospital complex, is often excluded. The recycling program and energy reports do not cover it.
- **Recommendation:** The university's climate protection plan should include sustainable procurement, eco-friendly labs, and greener events, ensuring the medical campus is integrated through collaboration with hospital management.

Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance describes planetary health as "a solutions-oriented, transdisciplinary field and social movement focused on analysing and addressing the impacts of human disruptions to Earth's natural systems on human health and all life on Earth." This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanisation, biodiversity shifts, natural disasters, climate change, changing land use and land cover, global pollution, and changing biogeochemical flows. The health of humanity is dependent on our environment, and our environment is changing rapidly and in disastrous ways. Although the World Health Organization has called climate change "the greatest threat to global health in the 21st century," many health professional school's institutional priorities do not reflect the urgency of this danger to human health.

As future health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients' health. This preparation is in the hands of the institutions providing our health professional training. It is imperative that we hold our institutions accountable for educating health professional students about the health impacts of climate change and other anthropogenic environmental changes, generating research to better understand health impacts and solutions, supporting related student initiatives, embracing sustainable practices as much as possible, and engaging with surrounding communities that are most affected by environmental threats. Because climate change and environmental threats disproportionately affect vulnerable populations (for example, communities of colour, older adults sensitive to health threats, and individuals in low-resource settings), these issues are inherently ones of equity and justice.

With the purpose of increasing planetary health awareness and accountability among health professional schools, we have created a Planetary Health Report Card that students internationally can use to grade and compare their institutions on an annual basis. This student-driven initiative aims to compare health professional schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) university support for student planetary health initiatives, and 4) community outreach centred on environmental health impacts, and 5) school campus sustainability.

Definitions & Other Considerations

Definitions:

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 - 1. Describe how the environment and human health interact at different levels.
 - 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 - 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- Medical School/Department vs. Institution: When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.
- Environmental history (Metric #19 in Curriculum Section): This is a series of questions

students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.

- **Elective:** The word "elective" refers to an optional course or lecture series that a student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- Core Curriculum: This refers to taught material that is delivered to the entire cohort of students in one year.
- Clerkship / Outreach: This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- Clinical rotation: This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- Community organisations: For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- Climate justice: The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.
- Extractivisim: The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.
- Global South: Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.

- Low socioeconomic status (SES): An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.
- Low and Middle-Income Countries (LMIC): Countries that have lower degrees of economic affluence.
- **Anthropogenic:** Created through human activity
- Marginalized communities: Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

• If there are more than one "tracks" at your institution with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples). Where possible please indicate the proportion of students that are on each track.

Completed in 2022 a <u>Literature Review by Metric</u> is available for the 2022 medicine report card metrics. We are in the process of updating this review and making it more applicable to all the disciplines. However the review serves as a rough collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

<u>Section Overview:</u> This section evaluates the integration of relevant planetary health topics into the medical school curriculum. Today's medical students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that medical students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.

Curriculum: General

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year. (2 points)	
The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health. (1 points)	
No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	2
Score explanation: The university offers one elective course named "Klimawandel und Gesundheit" [Climate change and health] in which they discuss the impact of climate change on public health and health systems as well as possible actions and solutions.	

Curriculum: Health Effects of Climate Change

1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	3

Score explanation:In lecture 6 of "QB6 Umweltmedizin" [Environment medicine] increasing temperatures as a result of climate change, potential vulnerable groups of extreme heat and the most frequent diagnoses at the time of heatwaves were discussed. In lecture 5 heat waves were mentioned as an example of environmental related deaths.

In "Allgemeinmedizin" [general health] the topic of heat was part of a lecture as well as an online self-learning module in which risk groups and preventive measures in practices were displayed. The book "Überhitzt- Die Folgen des Klimawandels für unsere Gesellschaft" [Overheated-Consequences of climate change for our society] by Claudia Traidl-Hoffamnn and Katja Trippel was recommended which talks about the connection of climate change and health. These effects are also addressed in the "Lernbar", a digital learning tool offered by the Institut Allgemeinmedizin [Institute of general health].

1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: In lecture 6 of "QB6 Umweltmedizin" [Environment medicine] potential health ulissues related to flooding as a result of extreme rainfall and thunderstorm-related asthma is mentioned. Along that, the topic is addressed in the "Lernbar", offered by the institute of general medicine, to deepen the contents of the lecture.

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

Score explanation: In the lecture and online learning module "Allgemeinmedizin" [general health], the topic of infectious diseases is discussed on several slides. They address the impact of urbanization, climate change and globalisation on vector transmitted diseases and possible prevention measures.

This is also covered in lecture 6 of QB6 Umweltmedizin [Environmental medicine] with examples of the Hyalomma tick given.

1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: In lecture 6 of "QB6 Umweltmedizin" [Environment medicine] it is said that ozone whose concentration on ground levels has been rising over the last years can cause inflammation in the respiratory system and therefore affect the lung function. The respiratory health effects of ozone exposure are discussed.

In addition there is a slide showcasing the connection between fine dust/ozon and sensitization which leads to more cases of allergic asthma. Vulnerable groups as well as preventive measures were briefly mentioned. Wildfires as a source of fine dust, new allergens as a result of changing climate and flora, and thunderstorm asthma were said to decrease life quality.

There is also a brief mention of the respiratory health effects of climate change in the "Lernbar" offered by the institute of general medicine.

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: In the lecture "Klima und Gesundheit" [Climate and health] of the subject "Allgemeinmedizin" [general health] a slide shows a graph in which cardiovascular diseases are said to be increased by air pollution.

This topic is briefly mentioned in a slide on the "Lernbar" offered by the institute of general medicine as well.

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1	point)	
This topic was not covered. (0 points)		
Score Assigned:	2	
Score explanation: In lecture 6 of "QB6 Umweltmedizin" [Environment medicine] solastalgia and resilience are explained. Several causes for solastalgia were mentioned, eg. natural disasters, rising sea levels, declining food supply, and new diseases and PTBS as a result of climate disasters. It was also taught which measures could help to build resilience. There is also a brief mention of psychological effects of climate change (PTSD caused by catastrophes, as well as the potential causational relationship between respiratory pollutants and Alzheimer) in the "Lernbar", an online learning tool, offered by the institute of general medicine.		
1.8. Does your <u>medical school</u> curriculum addr patient food and water security, ecosystem hea	ress the relationships between health, individual alth, and climate change?	
This topic was explored in depth by the core current	riculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1	point)	
This topic was not covered. (0 points)		
Score Assigned:	2	
Score explanation: In the lecture "Klima und Gesundheit" [Climate and health] of the subject "Allgemeinmedizin" [general health] a graphic is shown explaining food safety and supply as impacted by climate change and naming potential consequences of this effect (Malnutrition, Salmonella borne food poisoning, Mycotoxin effects).		
1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?		
This topic was explored in depth by the core curr	riculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	2	
Score explanation: There is a short mention of the increased effects of climate change on marginalised populations (disabled people, homeless people, socially isolated people, old and very		

young people, outside working manual labourers, healthcare workers, pregnant people, people taking medication) in the lecture Klima und Gesundheit (Climate and Health) by the institute of general health as well as a repetition of the slide in the "Lernbar" offered by the same.

1.10. Does your <u>medical school</u> curriculum add climate change globally?	ress the unequal regional health impacts of	
This topic was explored in depth by the core curriculum. (3 points)		
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	2	
Score explanation: In lecture 6 of "QB6 Umweltm mentions of regional catastrophes resulting from i floods and droughts, as well as wildfires and region well as potential consequences (famines, loss of h depending on the region affected. There is mention affected by the different forms of (climate) crises.	mpact of climate change. Several slides mention onal transmitters of diseases and their spread as ome/employment, fine particles release),	

Curriculum: Environmental Health & the Effects of Anthropogenic Toxins on Human Health

1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?		
This topic was explored in depth by the core curriculum. (3 points)		
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	0	
Score explanation: This is not covered.		

1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?
This topic was explored in depth by the core curriculum. (3 points)
This topic was briefly covered in the core curriculum. (2 points)
This topic was covered in elective coursework. (1 point)

This topic was not covered. (0 points)	
Score Assigned:	0
Score explanation: This is not covered.	

1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	0
Score explanation: This is not covered.	

1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?	
This topic was explored in depth by the core curr	iculum. (3 points)
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	0
Score explanation: This is not covered.	

Curriculum: Sustainability

1.15. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet? This topic was explored in depth by the core curriculum. (3 points) This topic was briefly covered in the core curriculum. (2 points) This topic was covered in elective coursework. (1 point)

This topic was not covered. (0 points)	
Score Assigned:	2

Score explanation: In the lecture Klima und Gesundheit [Climate and Health] of the department of Allgemeinmedizin [general medicine], there are mentions of the "Planetary Health Diet" (Plant based, with further specifications given) as a tool for Mitigation (the prevention of furthering climate change) to recommend to patients.

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

Score explanation:

The "Lernbar" by the institute of general health has a slide mentioning the carbon footprint of the General Practice, specifically the large effects of aerosolic sprays.

1

The elective course "Climate change and Health" covers the carbon footprint of the healthcare system as well as strategies to reduce emissions. A summary of the course can be found here: https://www.egms.de/static/de/journals/zma/2023-40/zma001613.shtml

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	Score
The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment (2 points)	0
The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfil this metric. (2 points).	2
The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	0
Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0

The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	1
Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	0

Score explanation:

- 1. In the lecture Klima und Gesundheit [Climate and Health] of the department of Allgemeinmedizin [general medicine] there is brief mention of the environmental impact of avoiding overmedication, though the patient health benefit is not mentioned.
- 2. In the lecture Klima und Gesundheit, the concept of Mitigation in the healthcare practice is introduced, which includes the "rational prescription of pharmaceuticals" as a measure to reduce climate change.
- 3. There is no description of the patient health <u>and</u> climate health co-benefit given.
- 4. This is not covered.
- 5. This is not covered.
- 6. Klima und Gesundheit [Climate and Health] of the department of Allgemeinmedizin [general medicine]
- 7. This is not covered

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?

Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)

Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 points)

No, there are **no** strategies introduced for having conversations with patients about climate change. (0 points)

2

Score Assigned:		

Score explanation: In the lecture Klima und Gesundheit [Climate and Health] of the department of Allgemeinmedizin [general medicine] conversations with patients about climate change are recommended under the concept of Mitigation, along conversational tools to have these conversations. The doctor-patient relationship is emphasized for helpful conversation, conversational tools (shared decision making, motivational conversation strategies, non directive approaches) are given, and the importance of recognising where the patient stands (conversational skills, knowledge and opinion about climate change) and meeting with them there is mentioned.

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?

Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)

Only **elective** coursework includes strategies for taking an environmental history. (1 point)

No, the curriculum does not include strategies for taking an environmental history. (0 points)		
Score Assigned: 2		
Score explanation: During the mandatory Introduction to clinical Examination Methods course (UKliF), students are trained to take a full history, which includes asking about environmental exposure as well as occupational exposure.		

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?		
Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education. (4 points)		
Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education. (2 points)		
No, there are no improvements to planetary health education in progress. (0 points)		
Score Assigned: 0		
Score explanation: We could find no mentions of specific improvements planned.		

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?

Planetary health/ESH topics are well integrated into the core medical school curriculum. (6 points)

Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)

Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s).** (2 points)

There is **minimal/no** education for sustainable healthcare. (0 points)

Score Assigned:

Score explanation: The subject is primarily addressed in the lecture series "Umweltmedizin" during the 5. clinical semester, as well as a standalone lecture in Allgemeinmedizin during the 2. clinical semester. Both of these take place during the clinical phase of the study. There are mentions of the health effects of environmental toxins throughout the preclinical phase of the degree, though not with the mention of planetary health specified.

1.22. Does your medical school employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?

Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)

No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)

Score Assigned:

Section Total (36 out of 72)	50%
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Score explanation: There is no such employee at the moment.

Interdisciplinary Research

<u>Section Overview:</u> This section evaluates the quality and quantity of interdisciplinary planetary health research at the broader institution. Interactions between health and the environment are complex and multifactorial. While climate change has been extensively studied from an environmental science perspective, planetary health is an emerging field. As leading health institutions with talented researchers and research resources, institutions should fund research studying the health effects of climate change and anthropogenic environmental toxins. This obligation is particularly strong because the public and policymakers are more attentive to climate change when its implications for human health are emphasised.

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u>?

Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)

Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)

There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)

No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)

1

Score Assigned:	
Score Assigned:	

Score explanation:

Goethe University Frankfurt is actively engaged in sustainability-related research through its **Profile Area "Sustainability & Biodiversity"**, which bundles interdisciplinary activities across departments. While this research addresses environmental sustainability and biodiversity, it does not have a primary focus on planetary health or sustainable healthcare/vetcare within the medical faculty, as required for higher scores.

https://www.goethe-university-frankfurt.de/128452137/Profile Area Sustainability Biodiversity

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?

There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)

There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)

There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research. (1 points)		
There is no dedicated department or institute. (0 points)		
Score Assigned:	3	
Score explanation:		
Goethe University Frankfurt has established the which serves as an interdisciplinary network proplanetary health, sustainability, and biodiversity.	moting research and teaching in the fields of	
transdisciplinary excellence in research and chemical stressors. • Interdisciplinary Collaboration: Extension humanities, social sciences, and econom "RobustNature", which investigates hum for systemic risks. • External Partnerships: Goethe Universions such as the Senckenberg Society for Naturand the Helmholtz Centre for Environme • Key Research Areas: Topics include ear conservation, and sustainability. Goethe University provides a dedicated structure	nan-ecosystem dynamics and develops solutions ity collaborates closely with external institutions are Research, the German Meteorological Service, intal Research. ith and climate system research, nature and infrastructure that meets the criteria for an isearch, fully justifying the maximum score for this	
2.3. Is there a process by which communities of and environmental injustice give input or makinstitution?	lisproportionately impacted by climate change are decisions about the research agenda at your	
Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda. (3 points)		
Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda. (2 points)		
No , but there are current efforts to establish a predecisions on the research agenda. (1 points)	rocess for community members to advise or make	
There is no process, and no efforts to create such a process. (0 points)		
Score Assigned:	1	
Score explanation:		

Goethe University Frankfurt has implemented initial participatory processes focused on sustainability. However, these efforts are limited to internal university stakeholders and do not provide decision-making power or advisory roles to disproportionately impacted communities.

Key Efforts:

1. Sustainability Consultation Hours:

Monthly sessions organized by the Sustainability Office provide a space for students and staff to discuss sustainability issues and propose ideas. These sessions foster internal participation but do not engage external communities.

2. International Research Project in West Africa:

This project addresses land-use conflicts and integrates indigenous knowledge from local communities. While promising, it is a research initiative rather than a formal mechanism for affected communities to influence the university's environmental research agenda

3. Sustainability Workshops (2024):

These workshops included participants from the university community, generating ideas for the university's sustainability strategy. While inclusive, they did not specifically target disproportionately affected external communities.

Although the university demonstrates progress in sustainability and engagement, there are no formal processes specifically involving climate-affected communities. Current efforts, such as participatory workshops, are steps toward broader inclusion, justifying a score of 1 for this metric.

https://aktuelles.uni-frankfurt.de/english/colonial-legacy-goethe-university-frankfurt-researches-international-project-on-land-use-conflicts-in-west-africa/?highlight=runge

https://www.uni-frankfurt.de/88547476/Nachhaltigkeit_an_der_Goethe_Universit%C3%A4t#a_c99 faef3-2465828c

https://aktuelles.uni-frankfurt.de/gesellschaft/nachhaltigkeitswerkstaetten-das-engagement-der-teil nehmenden-und-das-positive-feedback-zeigen-uns-dass-wir-auf-dem-richtigen-weg-sind/?utm_sour ce=chatgpt.com

2.4. Does your <u>institution</u> have a planetary health website that centralises ongoing and past research related to health and the environment?		
There is an easy-to-use , adequately comprehensive website that centralises various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)		
There is a website that attempts to centralise various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)		
The institution has an Office of Sustainability website that includes some resources related to health and the environment. (1 point)		
There is no website. (0 points)		
Score Assigned:	2	
Score explanation:		

Goethe University Frankfurt provides a dedicated sustainability webpage titled "Nachhaltigkeit an der Goethe-Universität", which aligns well with the broader definition of planetary health provided by the Planetary Health Alliance. Although the term "planetary health" is not explicitly used, the webpage encompasses a variety of resources and initiatives that address the interconnectedness of human health and the environment.

Strengths of the Website:

1. Coverage of Relevant Topics:

- The sustainability webpage addresses key issues such as climate change, biodiversity loss, sustainable resource use, and pollution, which are integral to planetary health.
- It highlights the **university's strategic goals** for sustainability, including carbon neutrality by 2038 and the promotion of a socially and ecologically just campus.

2. Centralized and Accessible Resources:

- The page serves as a central hub for resources such as workshops (e.g., "Hochschulforum Nachhaltigkeit"), events, and initiatives, which engage the university community in addressing planetary health-related challenges.
- It includes links to governance documents, strategic goals, and contact points like the Sustainability Office, which coordinates activities and provides advisory services.

3. Interdisciplinary Approach:

• The website showcases cross-departmental initiatives and transdisciplinary collaboration, aligning with the human health focus of planetary health. Examples include teaching projects, research on sustainable healthcare systems, and community-driven efforts to reduce the environmental impact of university operations

The term "planetary health" is not explicitly stated. Nonetheless the university's sustainability webpage effectively addresses its principles by providing centralized, accessible, and comprehensive resources related to the health of human civilization and natural systems. Therefore, it meets the criteria for at least two points in this metric.

https://www.uni-frankfurt.de/88547476/Nachhaltigkeit an der Goethe Universit%C3%A4t#a c99 faef3-2465828c

2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?

Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)

Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)

Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)

The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)

No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)

Score Assigned:	2
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Score explanation:

In 2024, Goethe University Frankfurt demonstrated significant engagement in planetary health through various events, including the **Hochschulforum Nachhaltigkeit**, which directly addressed sustainability and environmental health topics, aligning with planetary health principles.

Key Activities:

1. Hochschulforum Nachhaltigkeit:

The university hosted this recurring event as a platform for discussion, reflection, and collaboration on sustainability topics, bringing together faculty, students, and external experts. In 2024, themes included transdisciplinary research, sustainable practices, and environmental health, which are closely tied to planetary health.

- 2. Event: "Mensch, Tier, Umwelt Gesundheit für alle: Chancen des One-Health-Ansatzes" (October 24, 2024):
 - This event focused on the health interconnections between humans, animals, and the environment, covering biodiversity, climate change, and water systems, reinforcing the university's commitment to planetary health.
- 3. Participation in the "Planetary Health Forum '23" (November 30 December 1, 2023): The university actively participated in this national conference in Berlin, promoting collaboration between health, climate, and environmental sectors.

Goethe University's hosting of the Hochschulforum Nachhaltigkeit, alongside other events and research, demonstrates active involvement in planetary health-related topics. While there is no single, large-scale conference fully meeting the 4 or 3-point criteria, the collective impact of these activities might justify a score of 2.

https://www.uni-frankfurt.de/155535704/Hochschulforum-Nachhaltigkeit_240205_Studium-und-Lehre_final_pdf.pdf

<u>https://aktuelles.uni-frankfurt.de/event/mensch-tier-umwelt-gesundheit-fuer-alle-chancen-des-one-health-ansatzes/</u>

2.6. Is your <u>institution</u> a member of a national or international planetary health or ESH/ESV organisation?

Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points)

No, the institution is **not** a member of such an organisation. (0 points)

Score Assigned: 0

Score explanation:

No, it is not a member of such an organisation

Section Total (9 out of 17)	53%

Community Outreach and Advocacy

Section Overview: This section evaluates medical school engagement in community outreach and advocacy efforts associated with planetary health. Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.

3.1. Does your	· <u>institution</u>	partner wi	ith community	organisations	to promote	planetary	and
environmenta	l health?						

Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)

Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)

The **institution** does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)

No, there is **no** such meaningful community partnership. (0 points)

Score Assigned:

0

Score explanation:

There are no distinct partnerships between the institution and community organisations to promote public health.

3.2. Does your <u>institution</u> offer community-facing courses or events regarding planetary health?

The **institution** offers community-facing courses or events at least once every year. (3 points)

The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)

The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)

The **institution** has not offered such community-facing courses or events. (0 points)

Score Assigned:

0

Score explanation:

There are no explicit community-facing events hosted by the medical faculty.

3.3. Does your <u>institution</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?		
Yes, all students regularly receive communication sustainable healthcare. (2 points)	n updates dedicated to planetary health and/or	
Yes, planetary health and/or sustainable healthcar updates to some courses . (1 point)	e topics are regularly included in communication	
Students do not receive communications about pl points)	anetary health or sustainable healthcare. (0	
Score Assigned:	2	
Score explanation: There is a specific Office of Sustainability covering news and topics that meet this criteria. They publish via homepage and newsletter.		
https://www.uni-frankfurt.de/88547476/Nachhalti	gkeit_an_der_Goethe_Universit%C3%A4t	
3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?		
Yes, the institution or main affiliated hospital trust offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)		
Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider. (1 point)		
There are no such accessible courses for post-graduate providers. (0 points)		
Score Assigned:	0	
Score explanation: There are no specific courses or programs for graduates about climate and public health.		

3.5. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?

Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned:	2	
Score explanation:		
There are online events available regarding effects and clinical issues in terms of global health. It is called "Gesundheitsforum", and is open to the public and hosted by different experts.		
https://vimeo.com/showcase/11462447?page=2&	page=3&page=3	

3.6. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change? Yes, the <u>institution</u> or <u>all</u> <u>affiliated hospitals</u> have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned:

Score explanation:

The institution and teaching hospital does not provide any brochures for patients about environmental health. There is only general information regarding the stay or hospital policies.

https://www.unimedizin-ffm.de/ueber-uns/vorstand-des-universitaetsklinikums/aerztliche-direktion/s tabsstelle-kommunikation/downloads

0

Section Total (4 out of 14)	29%
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Back to Summary Page here

Support for Student-Led Planetary Health Initiatives

<u>Section Overview:</u> This section evaluates institutional support for student-led planetary health initiatives, such as funding, fellowships, programming, and student groups. Planetary health is a young field and, as young people facing a future deeply shaped by climate change, students are often some of the first at an institution to engage with it. Institutions should provide support for students to engage in sustainability quality improvement (QI) initiatives, discover mentors in their area of interest, and receive funding for planetary health projects.

4.1. Does your <u>institution</u> offer support for studinitiative/QI project?	lents interested in enacting a sustainability
Yes, the institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum. (2 points)	
The institution encourages sustainability QI project requirements) and offers resources to help student student funding available and there is no requirements	s succeed in these projects, but there is no
No, the institution does not offer opportunities or projects. (0 points)	support for sustainability initiatives or QI
Score Assigned:	0
Score explanation: At this time, there is no such support for medical s	students.

4.2. Does your institution offer opportunities for students to do research	h related to planetary
health and/or sustainable healthcare/vetcare?	

The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)

There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time. (1 point)

There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)

Score Assigned:	1
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Score explanation:

The institution has a special department called "Institut für Arbeitsmedizin, Sozialmedizin und Umweltmedizin". It is possible to participate in programs about clinical aspects of planetary health, but there is not a specific fellowship program for medical students.

https://www.uni-frankfurt.de/85353442/Umweltmedizinische Forschung

4.3. Does the <u>institution</u> have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.

The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)

There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)

There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)

Score Assigned:

0

Score explanation:

No, there is no webpage of this kind for medical students.

4.4. Does your <u>institution</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?

Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)

Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)

No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)

Score Assigned:

2

Score explanation:

The institution provides an Office of Sustainability that supports student initiatives. There is a list of groups participating in planetary sustainability. Not specifically for medical students, the Office covers the whole institution.

https://www.uni-frankfurt.de/88547476/Nachhaltigkeit an der Goethe Universit%C3%A4t

There are several registered student groups in cooperation with this office, like the "Referat für Ökologie" or "Students For Future Frankfurt". Together with the Office of Sustainability these groups cover all kinds of topics regarding planetary health and sustainability on campus.

https://asta-frankfurt.de/gremien/asta-referate/referat-fuer-oekologie

https://studentsforfuture.info/ortsgruppe/frankfurt-am-main/

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?

Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)

No, there is no such student representative. (0 points)

Score Assigned:

0

Score explanation:

At this time, there is no dedicated spokesperson.

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	Score
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	0
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1

Score explanation:

The projekt "Campus Gärten" deals with organic agriculture and sustainable food systems. https://www.goethesgreenoffice.de/goethes-campus-garten/

The institution hosted a panel open for students and public with different workshops about planetary challenges and sustainability.

https://aktuelles.uni-frankfurt.de/gesellschaft/nachhaltigkeitswerkstaetten-das-engagement-der-teil nehmenden-und-das-positive-feedback-zeigen-uns-dass-wir-auf-dem-richtigen-weg-sind/

There are several guided outdoor programs hosted by the group of "Hochschulsport". Students can enroll in sport programs or activities like hiking or climbing.

Section Total (6 out of 15)	40%
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Campus Sustainability

Section Overview: This section evaluates the support and engagement in sustainability initiatives by the institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising every aspect of how our systems operate, from where we source our energy, to how we build our infrastructure, to what companies we invest in. Our medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.

5.1. Does your <u>institution</u> have an Office of Sustainability?		
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital. (3 points)		
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of hospital sustainability. (2 points)		
There are no salaried sustainability staff, but there is a sustainability task force or committee. (1 point)		
There are no staff members or task force responsible for overseeing campus sustainability. (0 points)		
Score Assigned:	2	
Score explanation:		
There is a Sustainability-Office, with multiple full-	-time staff members and salaried students. There	

is no specific staff member in charge of the medical school.

<u>Goethe-Universität — Nachhaltigkeitsbüro der Goethe-Universität</u>

5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?		
The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)		
The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)		
The institution has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate (1 point)		
The institution does not meet any of the requirements listed above (0 points)		
Score Assigned:	1	
Score explanation:		

The Goethe-University stated the goal of reaching carbon neutrality by 2038, but hasn't yet published the strategy. A climate protection concept is expected to be published in April 2025. At the same time, the sustainability strategy, which also includes areas beyond climate protection, is expected to be adopted.

<u>Goethe-Universität — Nachhaltigkeit an der Goethe-Universität; Goethe-Universität entwickelt</u> <u>Strategie für mehr Nachhaltigkeit | Aktuelles aus der Goethe-Universität Frankfurt</u>

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?

Yes, institution buildings are 100% powered by renewable energy. (3 points)

Institution buildings source >80% of energy needs from off-site and/or on-site renewable energy. (2 points)

Institution buildings source >20% of energy needs from off-site and/or on-site renewable energy. (1 point)

Institution buildings source <20% of energy needs from off-site and/or on-site renewable energy. (0 points)

1

Score Assigned:

Score explanation:

Since 2016 the university uses only green electricity. For most campuses heating is provided by the district heating network which uses waste, biomass as well as fossil fuels. Some buildings use fuel oil or gas.

In 2023 the energy used by the university was made off of ~60GWh from green electricity, ~48GWh from the heating network and a total of ~2GWh from fuel oil and gas. We could not find out how big the part of fossil fuels in the energy mix of the heating network is. Therefore it isn't possible to conclude how big the total part of renewable energy is, but it has to be somewhere between 55% and 99%. We therefore award 1 point.

<u>Goethe-Universität — Runterdrehen – Energiesparen an der Goethe-Universi</u> <u>Goethe-Universität — Fehler 403 - Zugriff nur innerhalb des Uni-Netzwerks</u>

5.4. Are sustainable building practices utilised for new and old buildings on the <u>institution's</u> campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?

Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)

Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)

Sustainable building practices are inadequately 0 (1 point)	or incompletely implemented for new buildings.		
Sustainability is not considered in the construction	on of new buildings. (0 points)		
Score Assigned:	2		
Score explanation:			
The State Office for Construction and Real Estate (LBIH) constructs the buildings (contract > EUR 5 million) for the university. They set the standards accordingly. Since 2023, "state buildings" have been built according to the BNB silver standard, as decided by the Hessian Ministry of Finance.			
https://hessen.de/presse/pressearchiv/leitfaden-	nachhaltiges-bauen-vorgestellt		
5.5. Has the <u>institution</u> implemented strategies environmentally-friendly transportation option			
impact of commuting?	is for students and reduce the environmentar		
Yes, the institution has implemented strategies to transportation options such as safe active transportions are well-utilised by students. Alternatively unsustainable forms of transportation by default.	y, the campus location is not amenable to		
The institution has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised. (1 point)			
The institution has not implemented strategies to transportation options. (0 points)	encourage and provide environmentally-friendly		
Score Assigned:	2		
Score explanation: All students get a nationwide free pass for public available. All campus locations are accessible by don't use cars to get to university.			
Goethe-Universität — Semesterbeitrag und Semes	<u>sterticket</u>		
5.6. Does your <u>institution</u> have an organics recycling program (aluminium/paper/plastic/g			
Yes, the institution has both compost and recyclic points)	ng programs accessible to students and faculty. (2		
The institution has either recycling or compost probable. (1 point)	rograms accessible to students and faculty, but not		
There is no compost or recycling program at the i	nstitution. (0 points)		
Score Assigned:	0		

Score explanation:

Most campuses have multiple waste bins for recycling, paper and other trash. There are no organic recycling programs or compost bins available.

The medical campus is part of the university hospital and there are no recycling programs available for students.

<u>Rückblick Abfallvermeidungswoche: Mehr Nachhaltigkeit und weniger Müll an der Goethe-Uni</u> Aktuelles aus der Goethe-Universität Frankfurt

5.7. Does the <u>institution</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

Yes, the institution has a**dequate** sustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability. (3 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)

There are **no** sustainability guidelines for food and beverages. (0 points)

Score Assigned:

0

Score explanation:

The university doesn't run any canteens and doesn't have sustainability requirements for food or beverages in the canteens located on its campuses. We therefore award 0 points.

Most of the canteens are run by the "Studentenwerk" a public institution which uses scores for CO2 emissions, water use, rain forest protection and animal welfare, that are shown next to every meal description. This allows students to choose sustainable options. The data comes from the "Eaternity Database (EDB)", which also evaluates the canteen's carbon footprint every semester. <u>Umweltscore</u>

In order to reduce food waste these canteens also use algorithms to better predict how much food will be needed and some of them offer the food that is left before closure for a reduced price to prevent it from being thrown away. "Restlos Glücklich" Angebot Additionally a big part of the meals proposed are vegetarian or vegan.

The canteen that is located on the medical campus is run by the university hospital. They offer at least one vegetarian meal per day, use a rebowl deposit system and charge single use cutlery. Leftover food is reused in casseroles the next day to reduce food waste. A part of the food is locally sourced.

Catering for events on the university hospital / medical campus exclusively use reusable cutlery and other utensils. They incorporate some vegetarian options and give the leftover food to hospital departments to avoid food waste.

5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply

procurement?

Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)

There are **no** sustainability guidelines for supply procurement. (0 points)

Score Assigned:

1

Score explanation:

The university states in its procurement regulations that preference shall be given to sustainable products where possible and that besides functional and economical aspects, sustainability should be included in the selection process.

However there are no clear requirements on the type or amount of sustainable products that must be met.

20180117 Veroeffentlichung BO.pdf

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?

Every event hosted at the institution **must** abide by sustainability criteria. (2 points)

The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required.** (1 point)

There are **no** sustainability guidelines for institution events. (0 points)

Score Assigned:

0

Score explanation: No, there are no sustainability requirements for the organization of events yet.

5.10. Does your <u>institution</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?

Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)

There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)

There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)

Score Assigned:

0

Score explanation:

There are no guidelines or programs to assist the implementation yet. However, certifications for sustainable experimental laboratories (LEAF or My Green Lab) are to be increasingly implemented. There are pilot project(s) planned for example in the Pharmacy department.

The university hosted a discussion on how to improve sustainability in their lab spaces. At this event they created an overview with possible ideas that every lab can use as a starting point. Hochschulforum-Nachhaltigkeit 230725 Labore pdf.pdf

5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?

The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)

The institution is **entirely divested** from fossil fuels. (3 points)

The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)

The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)

Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)

Score Assigned:

3

Score explanation:

The university has not made any direct investments in fossil fuels in its investments for the foundation's assets. In addition it has included a clause in its investment guidelines stating that it is also committed to socially, ethically and ecologically responsible criteria.

Section Tota	al (12 out of 32)	38%

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Grading

Section Overview

This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is a weighted average of the section grades, with curriculum receiving a higher weight owing to its larger number of metrics. Letter grades for each section and the institution overall were then assigned according to the table below.

Letter Grade*	Percentage	
A	80% - 100%	
В	60% - 79%	
С	40% - 59%	
D	20% - 39%	
F	0% - 19%	

Planetary Health Grades for the Goethe University Frankfurt School of Medicine

The following table presents the individual section grades and overall institutional grade for the Goethe University Frankfurt School of Medicine on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(36/72) \times 100 = 50\%$	С
Interdisciplinary Research (17.5%)	$(9/17) \times 100 = 53\%$	С
Community Outreach and Advocacy (17.5%)	(4/14) x 100 = 29%	D
Support for Student-led Planetary Health Initiatives (17.5%)	(6/15) x 100= 40%	C-
Campus Sustainability (17.5%)	$(12/32) \times 100 = 38\%$	D+
Institutional Grade	(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 43%	C-